**AMENDMENTS TO THE DRAWINGS:**

The attached sheet of Drawings includes changes to Figs. 1 and 2. This sheet, which includes Figs. 1 and 2, replaces the original sheet including Figs. 1 and 2.

Attachment: Replacement Sheet.

## REMARKS/ARGUMENTS

Claims 13, 15-23, 25 and 26 are pending in this application. By this amendment, Applicants cancel claims 1-12, 14 and 24, amend the drawings and claims 13, 15, 18, 19 and 21, and add new claim 26.

The drawings were objected to because Figs. 1 and 2 were not designated as --Prior Art--. Applicants have amended Figs. 1 and 2 to be properly designated as --Prior Art--. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

Claim 15 was objected to for containing a minor informality. Applicants have amended claim 15 to correct the minor informality noted by the Examiner. Accordingly, Applicants respectfully request reconsideration and withdrawal of this objection.

Claims 13-17, 20-22, 24 and 25 were rejected under 35 U.S.C. §102(b) as being anticipated by Huang et al. (US 2002/0113308). Claims 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huang et al. in view of Zhao et al. (U.S. 6,882,042).

Claim 13 has been amended to recite:

> "An integrated circuit package comprising:
> a substrate having a plurality of conductive traces;
> a plurality of balls disposed on a first surface of said substrate;
> a semiconductor die mounted to said substrate such that bumps of said semiconductor die are electrically connected to said plurality of conductive traces of said substrate;
> **an overmold material encapsulating said semiconductor die and said balls on said substrate such that portions of said balls that are disposed farthest from said substrate are exposed at an exterior of said integrated circuit package**; and
> a ball grid array disposed on a second surface of said substrate and in electrical connection with said conductive traces." (emphasis added)

With the unique combination and arrangement of features recited in Applicants' claim 13, including the feature of "an overmold material encapsulating said

semiconductor die and said balls on said substrate such that portions of said balls that are disposed farthest from said substrate are exposed at an exterior of said integrated circuit package," Applicants have been able to provide an integrated circuit package in which balls are embedded in the overmold material and exposed at an exterior thereof so as to provide a heat path for heat dissipation from the integrated circuit package (see, for example, fourth full paragraph on page 2 of the originally filed specification).

The Examiner alleged that Huang et al. teaches all of the features recited in Applicants' claim 13.

Claim 13 has been amended to recite the feature of "an overmold material encapsulating said semiconductor die and said balls on said substrate such that **portions of said balls that are disposed farthest from said substrate are exposed at an exterior of said integrated circuit package**" (emphasis added).

In contrast to Applicants' claim 13, as clearly seen in Fig. 1 of Huang et al., the balls 230 of Huang et al. are completely encapsulated in an overmold material 25. No portion of the balls 230 of Huang et al. are exposed to an exterior of the package. Thus, Huang et al. certainly fails to teach or suggest the feature of "an overmold material encapsulating said semiconductor die and said balls on said substrate such that portions of said balls that are disposed farthest from said substrate are exposed at an exterior of said integrated circuit package" as recited in Applicants' claim 13.

Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claim 13 under 35 U.S.C. § 102(b) as being anticipated by Huang et al.

New claim 26 recites:

> "An integrated circuit package comprising:
> a substrate having a plurality of conductive traces;
> a plurality of balls disposed on a first surface of said substrate;
> a semiconductor die mounted to said substrate such that bumps of said semiconductor die are electrically connected to said plurality of conductive traces of said substrate;
> an overmold material encapsulating said semiconductor die and said balls on said substrate such that portions of said balls that are

disposed farthest from said substrate are exposed; and

**a ball grid array disposed on said portions of said balls that are disposed farthest from the substrate that are exposed, the ball grid array being in electrical connection with said conductive traces through said plurality of balls**." (emphasis added)

Support for the features recited in new claim 26 is found, for example, in Figs. 7F, 8G and 9H, and the associated portions of the originally filed specification.

In contrast to Applicants' claim 26, as clearly seen in Fig. 1 of Huang et al., the balls 230 of Huang et al. are disposed on one surface of the substrate 20 and the ball grid array 24 is disposed on the opposite surface of the substrate 20. The portions of the balls that are disposed farthest from the substrate are in electrical connection with the heat sink 231, **NOT** with the ball grid array 24. Thus, Huang et al. certainly fails to teach or suggest the feature of "a ball grid array disposed on said portions of said balls that are disposed farthest from the substrate that are exposed, the ball grid array being in electrical connection with said conductive traces through said plurality of balls" as recited in Applicants' claim 26.

The Examiner relied upon Zhao et al. to allegedly cure deficiencies of Huang et al. However, Zhao et al. clearly fails to teach or suggest the feature of "an overmold material encapsulating said semiconductor die and said balls on said substrate such that portions of said balls that are disposed farthest from said substrate are exposed at an exterior of said integrated circuit package" as recited in Applicants' claim 13, and the feature of "a ball grid array disposed on said portions of said balls that are disposed farthest from the substrate that are exposed, the ball grid array being in electrical connection with said conductive traces through said plurality of balls" as recited in Applicants' claim 26. Thus, Applicants respectfully submit that Zhao et al. fails to cure the deficiencies of Huang et al. described above.

Accordingly, Applicants respectfully submit that Huang et al. and Zhao et al., applied alone or in combination, fail to teach or suggest the unique combination and arrangement of elements recited in Applicants' claims 13 and 26.

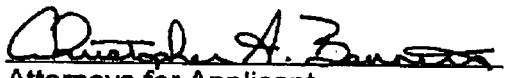
In view of the foregoing amendments and remarks, Applicants respectfully submit that claims 13 and 26 are allowable. Claims 15-23 and 25 depend upon claims 13 and 26, and are therefore allowable for at least the reasons that claims 13 and 26 are allowable.

In view of the foregoing amendments and remarks, Applicants respectfully submit that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

Date: August 18, 2005



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